

DRAWING AMENDMENTS

The attached sheet of drawings includes changes to Figure 1 and 2. The changes to Figure 1 include shortening the lead line for reference number 20, and adding a second reference number 14 and corresponding lead line. The changes to Figure 2 include extending the lead line for reference number 14.

Figure 4 is newly added. Figure 4 depicts an embodiment without the offsets as shown in Figure 1.

Attachment: Replacement Sheet.

REMARKS

Drawing Objections

In response to the drawing objections, Figures 1 and 2 have been amended. In Figure 1, the lead line for reference number 20 has been shortened. As such, Figure 1 corresponds with Figures 2 and 3, which all show the substrate 20 in the same position. Figure 1, has also been amended to include a second reference number 14. Figure 2 has been amended to extend the lead line for reference number 14.

Figure 4 has been added to show an embodiment without offset front panels 12. As such, it is respectfully submitted that all of the features of the claims are shown in the drawings.

With reference to paragraph 2 in the Office action, Figure 2 is a *partial* cross section taken generally along the line 2-2 shown in Figure 3. Figure 2 includes wavy lines to indicate that the figure is in part. Further, Figure 2 shows the front plate 12. *See* Figure 1; specification, page 3, lines 9-12. As such, reconsideration of the objection is requested.

Turning to paragraph 3 of the Office action, the examiner is requested to reconsider the objection. For example, the element 16 is a back plate and the element at 22 is another back plate. *See* specification, page 2, lines 19-24; page 3, lines 9-23.

The objection raised in paragraph 4 of the Office action is respectfully traversed. The specification clearly discloses that filler material may be between adjacent modules. *See, e.g.*, specification, page 4, lines 1-8 and 16-18. Moreover, the filler material is shown in the figures at 14. Figure 2 has been amended to extend the lead line for reference number 14 to the region between the substrate 20 and the back plate 22. Furthermore, solder balls may be used to surface mount the substrate 20 to the back plate 22 in some embodiments. Specification, page 3, lines 9-23. Thus, the question posed by the examiner is not understood. As such, the examiner is requested to reconsider the objection set forth in paragraph 4 of the Office action.

With respect to the objection in paragraph 5 of the Office action, it is respectfully submitted that every feature of the claims is represented in the drawings. For example, with respect to claims 24 and 25, the back plate 16 may be a carrier in some embodiments. *See, e.g.*, Specification, page 2, line 19- page 3, line 8; page 4, line 19- page 5, line 2. Additionally, with respect to claims 1, 11, 18, 19, 24, and 27 the filler material with desiccant mixed therein is indicated at 14 in the figures. As such, reconsideration of the objection is requested.

§ 112 Rejections

Claim 1 has been amended to call for a region between adjacent modules. As such, reconsideration of the rejection of paragraph 8 is requested.

The rejection set forth in paragraph 10 of the Office action is respectfully traversed. According to United States patent law the description does not have to be *in ipsius verbis*; there is no *in haec verbe* requirement. *See* MPEP § 2163. Further, at a minimum, support for a carrier may be found in the specification on page 2, line 19- page 3, line 8, and page 4, line 19- page 5, line 2. Accordingly, reconsideration of the rejection is requested.

With respect to the rejection set forth in paragraph 11 of the Office action, the examiner is requested to refer to the specification at page 3, line 24- page 4, line 3.

§ 103(a) Rejections

Independent claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsuura in view of Sakaguchi. For at least the reasons express below, it is respectfully submitted that *prima facie* obviousness has not been established.

Independent claim 1 calls for a filler material including a desiccant mixed into the filler material to seal the region between the front and back plates and a region between adjacent modules. Neither Matsuura nor Sakaguchi teach this limitation.

For example, the examiner concedes that Matsuura does not disclose a filler material including a desiccant mixed into the filler material filled between the front and

back plates and surrounding each module. *See* Office action, paragraph 14. Thus, it is respectfully submitted that Matsuura does not disclose filler material including a desiccant mixed into the filler material to seal the region between the front and back plates and a region between adjacent modules. The examiner has not shown how Sakaguchi discloses what Matsuura does not.

For example, the examiner has not presented evidence in the present Office action to show that Sakaguchi teaches the claimed filler material to seal as claimed. *See* Office action, paragraph 15. Nevertheless, previous argument explains that Sakaguchi does not disclose the concept of providing a filler material with a desiccant mixed therein in a region between adjacent modules of an array display and between front and back plates of a module. *See, e.g.*, Reply to Paper No. 1203. Because the examiner has not provided support in the present Office action for his contention, the position that Sakaguchi does not teach or suggest a filler material including a desiccant mixed therein to seal a region between a front and back plate and to seal a region between adjacent modules is maintained. For at least this reason, *prima facie* obviousness has not been established.

Moreover, even if Sakaguchi did disclose a filler material with a desiccant mixed into the filler material to seal a region between adjacent modules, which he does not, the prior art does not motivate one to modify Matsuura as suggested in the Office action. For example, the examiner asserts that it would have been obvious to construct the device of Matsuura with the filler material of Sakaguchi. *See* Office action, paragraph 17. There simply is no suggestion or motivation in Sakaguchi or Matsuura to modify Matsuura as proposed. For example, Matsuura's inter-insulator layer 6 is a film that is processed into columns. Column 6, lines 45-67; column 8, lines 1-12. *See also*, Figure 12 where columns 6 extend perpendicular to lower electrodes 3, and claim 1. The purpose of the columns of inter-insulator layer 6 is to prevent the sealing plate 7 from coming into contact with the organic EL elements due to external pressure on the sealing plate. Column 8, lines 1-12. Matsuura's columns 6 are an indispensable part of his invention. Column 4, lines 37-43. The filler material of Sakaguchi is an inert liquid. Column 3,

lines 16-18. There is no motivation to modify Matsuura to utilize Sakaguchi's inert liquid in a region between adjacent modules. In other words, it is not clear how the proposed modification could occur without altering Matsuura's columns 6, which are indispensable to Matsuura. As such claim 1 (and claims dependent thereon) is not obvious over Matsuura in view of Sakaguchi.

In the Office action it is asserted that the recitation of claim 1 "to seal the region between the front and back plates and a region between adjacent modules" is an intended use type limitation, and because Sakaguchi's filler material will be between Matsuura's adjacent modules, the prior art structure is capable of performing the intended use. *See* Office action, paragraph 18. Based on the explanation above, even if the sealing recitation is considered an intended use (for argument's sake), the prior art is not capable of the alleged intended use without a modification that is not suggested by the references.

Moreover, the use of the filler material to seal is not merely an intended use. For example, claim 1 recites a plurality of modules, and a front plate and a back plate. Claim 1 also recites a filler material including a desiccant mixed into the filler material. The filler material is not suspended in mid-air; rather, it is to seal the region between the front and back plates and a region between adjacent modules. Thus, the filler material including a desiccant mixed into the filler material is included in the display in a way that will allow it to seal as claimed. Functional limitations are not inappropriate and they may be used to define a particular purpose that the element is to serve. *See* M.P.E.P. §2173.05(g) Functional Limitations. As such, it is believed that the use of the filler material as claimed imparts a structural difference between the display of claim 1 and Matsuura in view of Sakaguchi. Thus, for this additional reason, *prima facie* obviousness has not been established with respect to claim 1 or claims dependent thereon.

Claim 1 also calls for an organic light emitting material formed on one side of a front plate, the organic light emitting material to pass light outwardly through the front plate. The examiner asserts that Matsuura passes light outwardly through the front plate

without providing evidence to support this contention. *See* Office action, paragraph 13. It is not clear that the examiner's contention is correct.

For example, Matsuura states that an organic electroluminescent element is required to have high precision and minuteness in patterning, uniformity in a light-emitting surface, and precision in the edge of a light-emitting surface. Column 1, line 18-29. Matsuura references his counter electrode 4 in discussing pattern precision and light emission that is freed from non-uniformity. *See, e.g.*, column 5, lines 29-42. Moreover, Matsuura designates electrode 3 as a *lower* electrode, and the view of Figure 12 as being from the upside. *See, e.g.*, column 9, lines 32-41. In view of Matsuura's relative terminology, it appears that light is emitted through the sealing plate 7.

That light is emitted through the sealing plate 7 is supported by Matsuura's focus on a thin sealing plate and the problems associated with the application of external pressure to the sealing plate. One advantage of Matsuura's invention is the formation of the inter-insulator layer 6, which functions as a column to prevent the sealing plate 7 from coming into contact with the body of the organic EL elements. As such, external pressure or impact on a thin sealing plate 7 may not cause a problem. *See* column 8, lines 1-11. Further, Matsuura describes filters in the sealing plate 7, the filters performing functions such as enhancing color purity of light *emission* and converting the color of *emitted* light by placing color conversion film in the sealing plate. *See* column 8, lines 14-56. Taken together, it is respectfully submitted that the examiner has not established that Matsuura's organic light emitting material is formed on one side of a front plate and that the organic light emitting material passes light outwardly through the front plate. Thus, for this additional reason, *prima facie* obviousness has not been established for independent claim 1 or claims dependent thereon.

Under a similar analysis, *prima facie* obviousness also has not been established for independent claims 11 or 27 and respective dependent claims.

With respect to dependent claims 5, 12, 14, and 15, the examiner concedes that Matsuura is silent as to using a dehydrating agent. Office action, paragraph 19.

However, the examiner asserts that Sakaguchi teaches a dehydrating agent such as granular silica gel or a zeolite. Office action, paragraph 20. But, Sakaguchi is silent to the filler material including an epoxy. *Id.*, at paragraph 21. Nevertheless, the examiner concludes that would have been obvious to one having ordinary skill in the art to include epoxy in the filler material of Sakaguchi.

The examiner cites to *In re Leshin*, 125 USPQ 416 to support his conclusion that it would have been obvious to include an epoxy in Sakaguchi's recited filler material such as perfluoroalkane or perfluoroamine. In *In re Leshin*, a prior art reference provided evidence of a plastic container that was similar to that of the appellant's claimed container. *In re Leshin*, 125 USPQ 416, 417 (CCPA 1960). Moreover, the appellant conceded that the plastics he uses were well known. *Id.* As such, the court concluded that "the selection of the plastics being on the basis of suitability for the intended use, would be entirely obvious." *Id.*, at 418. In contrast, in the present Office action, no evidence has been provided to show that epoxy is commonly mixed with the inert liquids perfluoroalkane or perfluoroamine. Additionally, neither of the cited references disclose a display comprising a filler material including a desiccant mixed into the filler material to seal the region between the front and back plates and a region between adjacent modules. The burden is on the examiner to establish *prima facie* obviousness; there is no requirement for the applicant to do testing or provide analytical data. As such, it is submitted that *prima facie* obviousness has not been established for claims 5, 12, 14, and 15.

Dependent claim 16 calls for covering the organic light emitting material with a back plate including surface mounting the front plate to the back plate. In the Office action, the examiner asserts that Matsuura shows the back plate is surface mounted to the front plate without providing evidence thereof. Office action, paragraph 24. Thereafter, the examiner asserts that Matsuura and Sakaguchi are silent to the method of surface mounting the back plate to the front plate and that the method is obvious in light of the resultant structure. Office action, paragraph 25. This is simply not true as both

Sakaguchi and Matsuura address attachment. *See* Sakaguchi at column 3, lines 33-41; Matsuura at column 2, lines 21-23. As such, *prima facie* obviousness has not been established with respect to dependent claim 16.

Dependent claim 17 calls for forming a transparent front plate to pass light emitted from the organic light emitting material outwardly through the front plate. For the same reasons explained above with respect to independent claim 1, the same holds true for dependent claim 17. As such, *prima facie* obviousness has not been established for dependent claim 17.

Dependent claim 18 calls for securing an array of modules to a carrier with a filler material including a desiccant mixed into the filler material. While Sakaguchi does use an epoxy adhesive to adhere a single sealing cap 9 to an anode 2 (in some instances), there is no indication that the epoxy includes a desiccant, or that Sakaguchi secures an array of modules to a carrier with a filler material including a desiccant mixed into the filler material, the modules of the array surrounded by the filler material. Column 4, lines 23-32. Thus, *prima facie* obviousness has not been established for dependent claims 18 or 24.

Dependent claim 19 calls for forming a lip of filler material including desiccant that extends beyond the periphery of the array modules and the carrier. The examiner cites to Sakaguchi, at Figure 3 at 14 as showing a lip of filler material that includes a desiccant. However, reference number 14 is in Figure 1 not Figure 3. As shown in Figure 1, reference number 14 points to an opening in the cap structure 9. The opening is in the cap structure and does not extend beyond the outer boundary of the cap structure. Accordingly, *prima facie* obviousness has not been established for claims 19 and 25.

Dependent claim 22 calls for surface mounting a front plate to a back plate using solder balls. Matsuura and Sakaguchi are not silent as to how their respective element or display is constructed. *See, e.g.*, Sakaguchi at column 3, lines 33-41; Matsuura at column 2, lines 21-23. Thus, there is no suggestion or motivation to modify the structures of Matsuura and Sakaguchi as proposed.

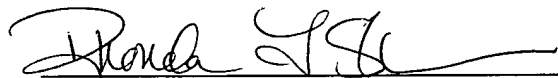
CONCLUSION

In sum, it is respectfully submitted that *prima facie* obviousness has not been established for independent claims 1, 11, or 27. As such, *prima facie* obviousness has not been established for the dependent claims.

In view of the amendments and remarks herein, the application is believed to be in condition for allowance. The examiner's prompt action in accordance therewith is respectfully requested. The commissioner is authorized to charge any additional fees, including extension of time fees, or credit any overpayment to Deposit Account No. 20-1504 (ITL.0618US).

Respectfully submitted,

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